Detailed Questionnaire for the Aquatic Animal Production Industry

Survey ID: 14120

The following sections are included in this file:

Section	Number of pages	CBI
Technical	22	
Technical Attachments	3	
Technical Notes	2	
Economic	6	✓
Economic Attachments	5	✓
Economic Notes	2	✓
Total	40	

Note: All files have been reviewed for copy quality. Imperfections in the original file picked up in photocopying such eraser marks and poor original quality have been reviewed such that all text in the original file has been included in the docket copy.

AAPI DETAILED QUESTIONNAIRE REVIEW FORM

3 pgs 14120

PAGE ___ OF ___

SIGNATURE OF REVIEWER: A. Eslava DATE of REVIEW: 03/25/03

FACILITY CONTACT: Cleon C. Morgan PHONE: 231 548 5424

(Please document the date and time of each call within the structure of your notes.)

AB3 Verify flow information

B2. Need all costs

04/03/03

AB3. Look OK for diagram. No need to call

B2. Get them for Tax information

CALCULATION SHEET

Tetra Tech, Inc.

CALC. NO. _____

SIGNATURE A. Erwin DATE 03/25/03 CHECKED _____ DATE _____

PROJECT ANP detailed JOB NO. _____

SUBJECT [redacted] SHEET 1 OF _____ SHEETS

B2

Egg: $\frac{\$500}{25,000} = \$0.02$ /each

Fuel: $\frac{4,000}{4\ hrs} = 1,000$ Avg

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF WATER

February 7, 2003

[redacted]
Cleon Morgan/Owner
Morgan Evergreen Trout Farm
7604 Woodland St Hwy Box 297
Alanson, MI 49706

NOT RECEIVED

Dear Mr. Morgan:

In June 2002, you received a Detailed Questionnaire for the Aquatic Animal Production Industry that was to be completed and returned by August 2002. As of today, we have not received your completed Questionnaire. If you recently completed and returned the Questionnaire, please disregard this letter. If you have not, please return the completed Questionnaire immediately, no later than February 24, 2003.

The Environmental Protection Agency will use the information collected from the Questionnaire to develop effluent limitations guidelines for the Aquatic Animal Production Industry. Completion and return of this Questionnaire is required under the authority of Section 308 of the Clean Water Act, as amended (the "Act"), 33 U.S.C. §1318. Instructions explaining the information requested are included with the Questionnaire. The Detailed Questionnaire was sent to a **sample** of aquatic animal production facilities. Without your returned Questionnaire, the Agency loses not only the ability to analyze the impact of various regulatory options on your facility, and also on all of the facilities in the industry represented by your facility. The data provided for your facility contributes to the Agency's analysis of wastewater control, treatment technologies and/or best management practices that may serve as the basis for effluent limitations and standards as well as the Agency's analysis of the economic achievability of regulatory options. A prompt return of your completed Questionnaire is critical to ensure that information pertaining to facilities like yours is included in our analyses. A second copy of your Questionnaire is included in this package for your convenience.

If you have any questions regarding the applicability of the Questionnaire to your facility, or need any of the questions clarified, please call EPA's toll-free Help-Line at **(888) 733-1449** for questions on Part A or Part B or at **(800) 566-7364** for questions on Part C. The help-line operates from Monday through Friday 8:30am-5:00pm EST and will also be able to assist you if you need another copy of the questionnaire. For other questions, such as those related to EPA's authority, please contact Ms. Marta Jordan at (202) 566-1049, or Ms. Jan Goodwin at (202) 566-1037 at EPA.

Thank you for your efforts in completing the Detailed Questionnaire for the Aquatic Animal Production Industry.

Sincerely,

Geoffrey H. Grubbs

Geoffrey H. Grubbs, Director
Office of Science and Technology

3

PART A TECHNICAL INFORMATION

Section 1. INFORMATION CONTACT AND FACILITY INFORMATION

☐ CBI **1.** Do you produce (grow, have, or maintain) aquatic animals (fish, shellfish, other aquatic animals) at this facility?

☒ Yes
Complete the survey and sign Certification 1 (Part D, page D-1) when finished with the survey.

☐ No
Complete and sign Certification 2 (Part D, page D-2) and return the survey to the mailing address provided on page D-1.

☐ CBI **2.** Is the mailing address on the label on the envelope correct?

☐ Yes (Go to Question 3).

☒ No, the mailing address is not correct (Please correct below).

Name of site: MORGAN TROUT FARM

Mailing address or PO Box: OK

City: OK State: OK ZIP code: OK

☐ CBI **3.** Provide the name, title, and telephone number of the person who can answer questions about information provided in this survey.

Contact name: CLEON C. MORGAN

Contact title: OWNER

Telephone number: (231) 548-5424

What is the most convenient day and time to call? 12 TO 2 a.m./p.m. (local time)

(Circle best days) (Mon. Tues. Wed. Thurs. Fri. Sat.) Sun. Any Day

☐ CBI **4.** If you have an NPDES permit, what is the permit number? (The format for an NPDES permit number is a two letter state code followed by a seven digit number, for example DC0000123): _ _ _ _ _ _ _ _ _

4

☐ CBI **5.** What are the name and address of the company, proprietor, or entity that owns this facility?

Name of company: MORGAN TROUT FARM

Mailing address or P.O. box: 7604 WOODLAND BOX 297

City: ALANSON State: MI ZIP code: 49706

☐ CBI **6.** **a.** What is the total acreage (land and water) of this facility? APPROX 160 acres

b. How much of your total acreage is in aquacultural and other agricultural use? 80 acres

Section 2. WASTEWATER CONTROL TECHNOLOGY

This section is designed to help EPA learn about the wastewater control technology practices at your facility. EPA understands that facilities do not necessarily need, or have, wastewater control technology practices in place at this time. This section will allow EPA to characterize the wastewater control technologies currently being used in the aquatic animal production (aquaculture) industry.

In the Screener Questionnaire, you were asked to report the methods of production you use at this facility. The questions you receive for Section 2 are based on your response to that question. For example, if you responded "Yes" to ponds and recirculating systems, you will receive Section 2. AA Ponds AND Section 2. AC Recirculating Systems. The possible wastewater control technology sections are:

- ☐ AA. Ponds
- ☐ AB. Flow Through Systems
- ☐ AC. Recirculating Systems
- ☐ AD. Net Pens and Cages
- ☐ AE. Floating Aquaculture and Bottom Culture
- ☐ AF. Other Aquaculture Systems

If you did not receive the correct section(s) for your method(s) of production, please call the Technical Information Help Line at 1-888-733-1449.

AB. *Flow Through Systems*

The following questions are designed to provide EPA with an understanding of your facility and how you manage the water and effluents in your flow through raceways, ponds, or tanks. EPA is interested in learning about any treatments or management practices that you use to help improve the quality of water before it is discharged from your flow through raceways, ponds, or tanks. EPA is also interested in any treatments or management practices that you use after water is discharged from your flow through raceways, ponds, or tanks. For the purpose of this survey, a discharge is water that no longer is being used for production of an aquatic species; for example, water from drains, overflows, and any other production unit water that is not being used for culture. EPA recognizes that there is diversity in the types of flow through raceways, ponds, or tanks. In an attempt to acknowledge this diversity and to help organize the responses, EPA has divided the "Flow Through" portion of the questionnaire into four phases, each consisting of one to four questions.

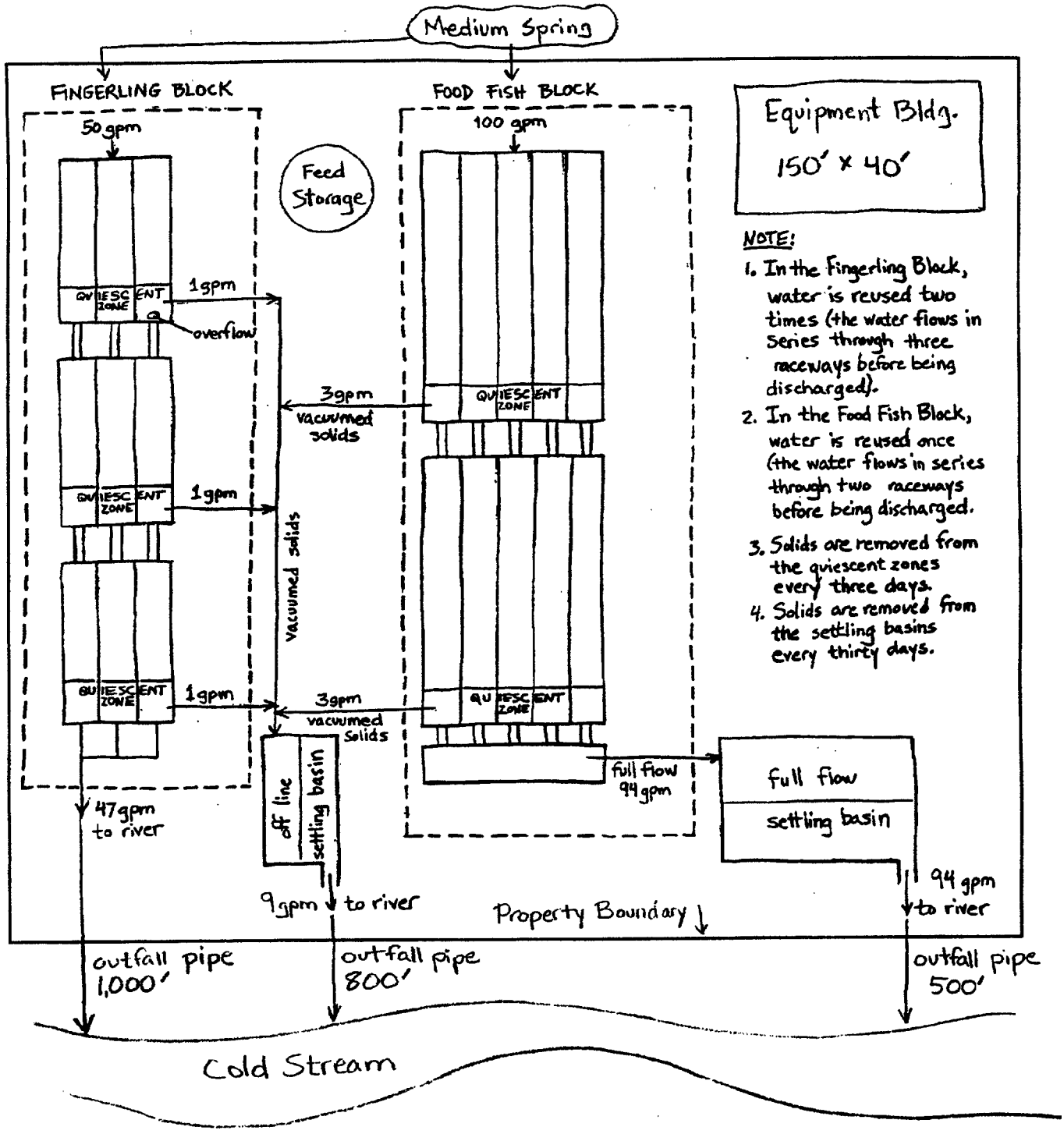
- ☐ Flow Through Raceway, Pond, or Tank Description
- ☐ Flow Through Raceway, Pond, or Tank Flow Rates
- ☐ Pollutant Control Practices
- ☐ Wastewater Discharge

☐ **CBI** **Site Diagram**

Please draw a layout sketch of your flow through raceways, ponds, or tanks and clearly indicate the locations of sources of water and where water is discharged. Attach the layout sketch to the back of the survey. On the following page, EPA has provided an example to help you provide the level of detail EPA is seeking to fully understand your system. Provide additional notes on your layout sketch to help explain details if needed. Please include and label any of the following that apply:

- ☐ Raceways, ponds, or tanks
- ☐ Drain locations
- ☐ Water source
- ☐ Support buildings/structures
- ☐ Any treatments outside the raceways, ponds, or tanks
- ☐ Discharge locations from property
- ☐ Name of waterbody that receives discharge
- ☐ Property boundary

Example Site Diagram



NOTE:

1. In the Fingerling Block, water is reused two times (the water flows in series through three raceways before being discharged).
2. In the Food Fish Block, water is reused once (the water flows in series through two raceways before being discharged.
3. Solids are removed from the quiescent zones every three days.
4. Solids are removed from the settling basins every thirty days.

Flow Through Raceway, Pond, or Tank Description

☐ CBI **AB1.** Please describe your water source.

a. What is the water source for your flow through raceways, ponds, or tanks? (Please check all that apply.)

- ☐ Water is pumped or flows from ground water (wells or springs).
- ☐ Water is pumped or flows from a stream, river, lake, estuary, ocean, or other surface waterbody.
- ☐ Water is pumped or flows from a public supply (municipal or irrigation).
- ☒ Other (please describe): ARTESIAN FLOWING WELLS AND GROUND WATER SPRINGS (SEE ATTACHED)

b. Is your water source freshwater or saltwater? (Please check all that apply.)

- ☒ Freshwater
- ☐ Saltwater (which includes brackish, estuarine, ocean, and tidal sources).

☐ CBI **AB2.** Please list the number and types of flow through raceways, ponds, or tanks that are on your site in the following table.

Please use a separate row for each different type of flow through raceway, pond, or tank. If the sizes or uses of your flow through raceways, ponds, or tanks are significantly different, please use separate rows to describe them. Many facilities operate a series of raceways, ponds, or tanks together as a "block" or "unit." Within the block (unit), there may be multiple raceways, ponds, or tanks operated together with similar flows running through them. Please enter the total number of raceways, ponds, or tanks in the block (unit) for each row in the table. Many facilities also reuse water after running it through an initial group of raceways, ponds, or tanks. Please enter the number of times water is reused before it is discharged (no longer used for culture).

You may give approximate sizes, but please indicate whether your measurement is in feet, meters, acres, or another unit. Flow through raceways, ponds, or tanks of roughly the same size may be grouped and entered in one row, or you may enter a range of sizes for the same type of production, if appropriate. If you have rectangular raceways, ponds, or tanks, please indicate the length, width, tank depth, and water depth. If you have circular ponds or tanks, please indicate the diameter, tank depth, and water depth. Follow the example provided in the table.

COPY __ OF __

	Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H	Column I
	Description of flow through raceway, pond, or tank block (unit) (please be as specific as possible)	Total number of raceways, ponds, or tanks in the block (unit)	Number of times water is reused in the block (unit)	Measurements					Construction material
				Length	Width	Diameter	Tank depth	Water depth	
Example	trout fingerling raceways	9	2	30 ft	4 ft		3 ft	2.5 ft	concrete
Example	trout foodsize fish raceways	10	1	40 ft	4 ft		3 ft	2.5 ft	concrete
TT FT RW 1	TROUT FINGERLINGS AN FOOD SIZE	7	Ø 6	48 FT.	16 FT		6FT	3 FT	EARTH
TT FT PD 2	TROUT FOOD SIZE	3	0	300 FT	100 FT.		10 FT	8 FT	EARTH
TT FT RW 3	TROUT FOOD SIZE	1	0	48 FT	16 FT		6 FT.	4 FT,	EARTH
4									
5									

Comments on your answers to Question AB2: _____

Flow Through Raceway, Pond, or Tank Flow Rates

☐ CBI **AB3.** In the table below please list the various flow rates for the flow through raceways, ponds, or tanks listed in Question AB2. Please use a separate row for each different type of flow through raceway, pond, or tank that you listed in Question AB2. To the best of your ability, Column A should be completed in the same order as Column A in Question AB2 (see example). Remember to include the units that you use for each of the flow rates, for example, cubic feet per second (cfs) or gallons per minute (gpm). The average flow rate reported in the inflow column should equal the sum of the average flows for the outflow columns. If desired, you can enter the outflow rates as a percentage of the inflow, but be sure to indicate the numbers as percentages (%) and make sure the total of the outflows equals 100%.

COPY __ OF __

	Column A	Column B	Column C	Column D	Column E	Column F
		Inflow	Outflow			
	Description of flow through raceway, pond, or tank block (unit) (please be as specific as possible)	What is the average flow rate of water flowing into the block (unit)?	What is the average flow rate of water discharged from this block (unit) to full-flow settling basins?	What is the average flow rate of water discharged from this block (unit) to off-line settling basins?	What is the average flow rate of water discharged from this block (unit) to other treatment systems?	What is the average flow rate of water discharged from this block (unit) directly off your property?
Example	trout fingerling raceways	50 gpm	0	3 gpm	0	47 gpm
Example	trout foodsize fish raceways	100 gpm	94 gpm	6 gpm	0	0
TT F7 RW 1	TROUT FINGERLING AND FOOD SIZE	300 GPM	300 GPM			~~300 GPM~~ 0
TT F7 PD 2		2X0 GPM				
TT F7 RW 3		2X0 GPM				
4						
5						

Comments on your answers to Question AB3: EST. 300 G.P.M WATER FLOW 1½" DP. x 43" WIDE FLOW THRU ALL PONDS. DO NOT REUSE WATER

Pollutant Control Practices

☐ **CBI** **AB4.** Check any of the practices that you use to improve effluent quality ***before*** the water leaves the flow through raceway, pond, or tank.

- ☒ Fish are fed carefully to avoid overfeeding.
- ☒ Quiescent zones are used to settle solids; (length of quiescent zone 16 x 100 feet).
- ☐ Solids are routinely removed from quiescent zones; (frequency of solids removal _____).
- ☐ Fish inventory is controlled.
- ☒ Fish are routinely screened to ensure fish health.
- ☒ Raceway screens are routinely cleaned.
- ☒ Mortalities are removed frequently.
- ☒ Dam boards are used in raceways during grow-out.
- ☐ Flow diversion is used during fish harvest (full-flow systems).
- ☐ I do not use management practices to improve effluent quality **before** the water leaves my flow through raceways, ponds, or tanks.
- ☐ Other (please describe): WATER TRAVELS 1,000 YDS AFTER LAST POND BEFORE REACHING PUBLIC WATERS

☐ **CBI** **AB5.** Check any of the practices that you use to reduce flow through raceway, pond, or tank effluent volume or improve effluent quality ***after*** the water leaves the flow through raceway, pond, or tank.

- ☒ Water is sent to full-flow settling basins.
- ☐ Solids are routinely removed from full-flow settling basins; (frequency of solids removal _____).
- ☐ Water is sent to off-line settling basins.
- ☐ Solids are routinely removed from off-line settling basins; (frequency of solids removal _____).
- ☐ Water is aerated after it leaves the raceway, pond, or tank.
- ☐ Water is used for irrigation (directly from the raceways, ponds, or tanks).
- ☒ Water is sent to a vegetated drainage ditch.
- ☐ Water is sent to an infiltration ditch.
- ☐ Solids are filtered using screens (other than those used in the quiescent zones, e.g., microscreens, rotating screens, vibrating screens).
- ☒ Water is sent to a wetland treatment system (directly from the raceways, ponds, or tanks).
- ☐ I do not use management practices to reduce effluent volume or improve effluent quality **after** water leaves my flow through raceways, ponds, or tanks.
- ☐ Other (please describe): WATER SENT TO 20 ACRE WET LAND

☐ **CBI** **AB6.** Check any of the practices that you use to reduce effluent volume or improve effluent quality ***after*** the water leaves a full-flow or off-line settling basin.

- ☐ Water is chlorinated.
- ☐ Water is dechlorinated.
- ☐ Water is ozonated.
- ☐ Water is UV irradiated.
- ☒ Water is sent to a wetland treatment system.
- ☐ Additional solids are filtered using screens (e.g., microscreens, rotating screens, vibrating screens).
- ☐ Water is treated in a waste stabilization lagoon.
- ☐ Water is used for irrigation.
- ☐ I do not use pollutant control practices to reduce effluent volume or improve effluent quality **after** the water leaves a full-flow or off-line settling basin.
- ☐ Other (please describe): WATER IS SENT TO WET LAND BUT NOT SURE IS CONSIDERED TREATMENT SYSTEM

☐ CBI **AB7.** Check any of the practices that are used to treat solids (manure or biosolids), that are captured in quiescent zones, full-flow or off-line settings basins, or other solids separation practices.

- ☐ Storage tanks or lagoons.
- ☐ Composting.
- ☐ Incineration.
- ☐ Municipal sewage system or publicly owned treatment works (POTW).
- ☐ Land application.
- ☐ Vacuum trucks.
- ☐ Off-line dewatering (drying or dehydrating).
- ☒ I do not use any pollutant control practices to treat solids.
- ☐ Other (please describe): 16 x 100 SETTLING BASIN TO 20 ACRE WET LAND TO 1,000 YRD. CEDAR SWAMP TO CROOKED RIVER

Wastewater Discharge

☐ CBI **AB8.** How does water from your flow through raceways, ponds, or tanks leave your property? This question will provide EPA with an understanding of what happens to the water after it leaves your flow through raceways, ponds, or tanks, and property.

- ☐ Flow through raceway, pond, or tank water is sent directly to a stream, river, lake, estuary, ocean, or other public waterbody.
- ☒ Flow through raceway, pond, or tank water is sent to a ditch that leaves my property and eventually flows into a stream, river, lake, estuary, ocean, or other public waterbody that is not on my property.
  - If this is the case, please estimate how far the water flows on private property (your property or other private property) before it enters a public waterbody. (Be sure to indicate units—feet or miles): ABOUT 1,000 YDS. THRU 20 ACRE WET LAND, THEN CEDAR SWAMP
- ☐ Flow through raceway, pond, or tank water is sent to a ditch that leaves my property but is used by another farmer for irrigation and does not flow into a stream, river, lake, estuary, ocean, or other public waterbody.
- ☐ Flow through raceway, pond, or tank water is sent to a publicly owned treatment works (i.e., the sewer).
- ☐ Flow through raceway, pond, or tank water does not leave my property because (please check all that apply):
  - ☐ Flow through raceway, pond, or tank water is sent to an infiltration ditch located on my property.
  - ☐ Flow through raceway, pond, or tank water is sent to an injection well located on my property.
  - ☐ Flow through raceway, pond, or tank water is evaporated from ponds or lagoons located on my property.
  - ☐ Flow through raceway, pond, or tank water is used to irrigate crops on my property.
  - ☐ Other (please describe): _____

Comments on your answers to question AB8: _____

☐ CBI **AB9.** If your flow through raceway, pond, or tank water eventually goes to a stream, river, lake, estuary, ocean, or other public waterbody, please identify the name of the waterbody and its location (river mile or prominent landmark, if known): CROOKED RIVER BETWEEN CROOKED LAKE AND BURT LAKE

PART B FACILITY COSTS

Section 1. COST INFORMATION

If effluent does not leave your property you do not have to fill out Parts B and C of the survey. You may go directly to the Certification Statement at the end of the survey (Part D, page D-1).

☐ CBI **B1.** In the previous subsections, you identified the pollution control practices that you use to treat water after it leaves your aquaculture production system(s) (for example, ponds, raceways, recirculating systems, etc.). The information you provide in this section is designed to inform EPA about the costs of these pollution control practices. Complete the tables on page B-3 for each pollution control practice that you use after water leaves your system. The different cost elements (capital investment, planning and design, labor for installation) are included to help you provide all of the costs associated with a particular pollution control practice. If you only know the total cost of a pollution control practice, then enter the total cost in the "Total cost" cell. **See page B-2 for an example of the information that EPA is seeking.**

Make copies of the tables on page B-3 ***BEFORE*** you fill them out so that you have separate sheets for each piece of equipment and/or wastewater treatment process (including best management practices that are used to treat the water before it leaves the production unit) used at the facility. Label each copy in the spaces provided in the top right corner of the page.

☒ **Check this box if there have been no wastewater treatment investment costs since the inception of this facility and go to Question B2 on page B-4.**

Cost Information for Pollutant Control Practices

Example. *Facility X grows tilapia in a recirculating system. Facility X uses a 1-acre off-line settling basin and land applies the collected solids. The settling basin is made of concrete and the solids are pumped weekly to a storage tank. Once a month, the storage tank is pumped out and the slurry is land applied on land that the fish farmer owns.*

Please describe the pollution control practice: *A 1-acre off-line settling basin made of concrete and built in 1995. The settling basin has a storage capacity of 2 weeks at Facility X during periods of maximum production, about 325,000 gallons of settled solids. A 1.5-million-gallon enameled steel manure storage tank is located on-site to store solids pumped out of the settling basin. The transfer pump from the settling basin to the storage tank is a 15-HP high solids pump with 250 ft. of 4-inch PVC pipe. A 10-HP pump is used to agitate and pump out the storage tank.*

What year did you install this practice? *1995.*

Cost Element - Initial Cost	**Original Cost**
Capital investment - *concrete settling basin, 1.5-million-gallon storage tank, 15-HP pump, 10-HP pump, 250-ft PVC pipe, other supplies*	*$45,000*
Planning and design - *engineering planning, surveying planning*	*$5,000*
Labor for installation	*$5,000*
Other costs (please list cost element)	
Electrical hook-up	*$2,500*

Cost Element - Annual Costs	**Original cost**
Labor for maintenance - *pump out @ 10 hours biweekly; land application @ 20 hours/ month; general maintenance @ 40 hours/year*	*$5,400*
Maintenance supplies and materials	*$2,500*
Energy	*$2,000*
Other costs (please list cost element)	
	$
	$
	$
Total cost	*$9,900*

☐ CBI **Cost Information for Pollutant Control Practices** COPY___ OF ___

Please describe the pollution control practice: NONE SELF CONTAINED POLLUTANTS

What year did you install this pollution control practice? 1975

Cost Element - Initial Investment	Original cost
Capital investment CONCRETE SPILLWAYS	$ 6,000.00
Planning and design EARTH DAMS	$ 6,000.00
Labor for installation	$
Other costs (please list cost element)	
	$
	$
	$
Total cost APPROX.	$ 12,000.00

Cost Element - Annual Costs	Original cost
Labor for maintenance	$
Maintenance supplies and materials	$
Energy	$
Other costs (please list cost element)	
	$
	$
	$
Total cost	$ 0

☐ CBI **B2.** The purpose of this question is to help EPA understand the total annual operating costs at your facility in fiscal year 2001, including costs associated with wastewater treatment. In column 1, provide your best estimate of the total annual quantity of each item. In column 2, indicate the appropriate unit measure for the quantity provided in column 1. If you do not use a particular item, please enter "0" rather than leaving it blank. In column 3, provide your best estimate of the price per unit.

ESTIMATED TOTAL ANNUAL OPERATING COSTS AT YOUR FACILITY IN FISCAL YEAR 2001			
	1	2	3
Item	**Total quantity**	**Unit**	**Unit price**
Eggs (specify unit)	25,000	1	~~$500.00~~ $0.02
Seed (shellfish operations) (specify unit)	0	0	0
Fingerlings (specify unit)	0	0	0
Broodstock (specify unit)	0	0	0
Feed	~~200~~ 4	tons ~~N~~	~~$4,000.00~~ 1,000
Predator control (specify unit)	0	0	0
Chemicals			
Antibiotic feed	0	pounds 0	0
Liquid fertilizer	0	gallons 0	0
Dry fertilizer	0	pounds 0	0
Liquid insecticide, pesticide, piscicide, or herbicide	0	gallons 0	0
Dry insecticide, pesticide, piscicide, or herbicide	0	pounds 0	0
Copper sulfate	0	pounds 0	0
Potassium permanganate	0	pounds 0	0
Lime (specify unit)	0	0	0
Other (please list) _____ (specify unit)	0	0	0
Paid Labor			
Part-time (< 40 hours/week)	0	number of employees	0
	0	hours/week	0
Full-time (≥ 40 hours/week)	0	number of employees	0
	0	hours/week	0

ESTIMATED TOTAL ANNUAL OPERATING COSTS AT YOUR FACILITY IN FISCAL YEAR 2001 (cont.)			
	1	2	3
Paid Management	0	number of employees	0
	0	hours/week	0
Unpaid Labor			
Part-time (< 40 hours/week)	0	number of employees	0
	0	hours/week	0
Full-time (□ 40 hours/week)	0	number of employees	0
	0	hours/week	0
Unpaid Management	0	number of employees	0
	0	hours/week	0
Repairs and Maintenance			
Machinery/equipment (specify unit)		$	2,697
Levee repairs/pond renovation (specify unit)			
Electricity		kilowatt-hour	
Well operation		acre-feet	
Gasoline, fuel, oil (specify unit)		$	37
Harvesting and hauling (specify unit)			
Other Annual Costs			
Please describe			
Licenses & Permits PC		$	75
Advertising MK		$	1,666
Office Supplies OS		$	20
Taxes TX		$	1470

Section 2. MONITORING INFORMATION

	2001	2000	1999

Section 3. PRODUCT LOSSES

☐ CBI **B4.** What was the estimated total loss of fish or other animal aquaculture (including losses from predation, escapes, mortalities, disease, or other) from this facility in fiscal year 2001 for each of the following?

	Number of eggs/larvae	Number of fry/seed	Number of fingerlings	Number of stockers	Number of food-size	Number of brood stock
Total losses	0		500	3,000	0	0

☐ CBI **B5.** If escapement data are available, how many finfish, shellfish, or other animal aquaculture (e.g., alligators, turtles, frogs) ***escaped*** from your facility in fiscal year 2001? See definitions of *native* and *nonnative species* in definitions section of the survey.

☒ Check this box if there were no escapes or you did not monitor escapes at this facility in 2001.

	Number of eggs/larvae	Number of fry/seed	Number of fingerlings	Number of stockers	Number of food-size	Number of brood stock
Native species	0	0	0	0	0	0
Nonnative species						

20

Section 4. FEED INFORMATION

☐ CBI **B6.** For fiscal year 2001, indicate the number of tons of aquatic animal production feed used annually and in your peak month, the type of feed used and the feed content. List all diets used at the facility (for example, larval, growout, maintenance, etc.).

Regular Feed

COPY __ OF __

Nonmedicated feed types	Annual amount used (in tons)	Peak month amount used (in tons)	Manufacturer and product number/ID	Feed content
FLOATING FISH FOOD	4 TON	1/4 TON	SEE ATTACHED	40.0 % protein 0.85 % phosphorus
				___ % protein ___ % phosphorus
				___ % protein ___ % phosphorus
				___ % protein ___ % phosphorus
				___ % protein ___ % phosphorus

Medicated Feed

Medicated feed types	Annual amount used (in tons)	Peak month amount used (in tons)	Manufacturer and product number/ID	Active medication ingredient	Feed content
0	0	0	0	0	___ % protein ___ % phosphorus
					___ % protein ___ % phosphorus
					___ % protein ___ % phosphorus
					___ % protein ___ % phosphorus
					___ % protein ___ % phosphorus

COMMENTS

COPY __ OF _

Question Number	Check If CBI	Comment

PART D CERTIFICATION

Where to Return the Survey

After completing the survey and certifying the information that it contains, use the enclosed mailing label to mail the completed survey to:

U.S. Environmental Protection Agency
Collection of 2001 Aquatic Animal Production Industry Data
c/o Tetra Tech, Inc.
10306 Eaton Place, Suite 340
Fairfax, VA 22030

Retain a copy of the completed survey, including attachments. EPA will review the information submitted and may request your cooperation in answering follow-up questions, if necessary, to complete its analyses.

CERTIFICATION STATEMENT 1

I certify under penalty of law that the enclosed survey response was prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. The information submitted is, to the best of my knowledge and belief, accurate and complete. In those cases where we did not possess the requested information, we provided best technical and financial estimates in response to the questions. We have, to the best of our ability, indicated what we believe to be company confidential business information as defined under 40 CFR Part 2, Subpart B. We understand that we may be required at a later time to justify our claim in detail with respect to each item claimed confidential. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment, as explained in Section 308 of the Clean Water Act.

Cleon C. Morgan
Signature of Certifying Official

FEB. 12, 2003
Date

CLEON MORGAN
Printed Name of Certifying Official

(231) 548-5424
Telephone Number

OWNER
Title of Certifying Official

CERTIFICATION STATEMENT 2

I certify under penalty of law that this site does not engage in aquatic animal production. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment, as explained in Section 308 of the Clean Water Act.

If you are certifying that your site is not engaging in aquatic animal production, indicate the classification of your site:

- ☐ Processor
- ☐ Consultant
- ☐ Resale of aquatic animals, including wholesale, retail, fish brokers, distributors, etc.
- ☐ Transporter
- ☐ Other (please specify) _____

_____
Signature of Certifying Official — Date

_____ (_____) _____
Printed Name of Certifying Official — Telephone Number

_____
Title of Certifying Official

Send To Printer Back To TerraServer

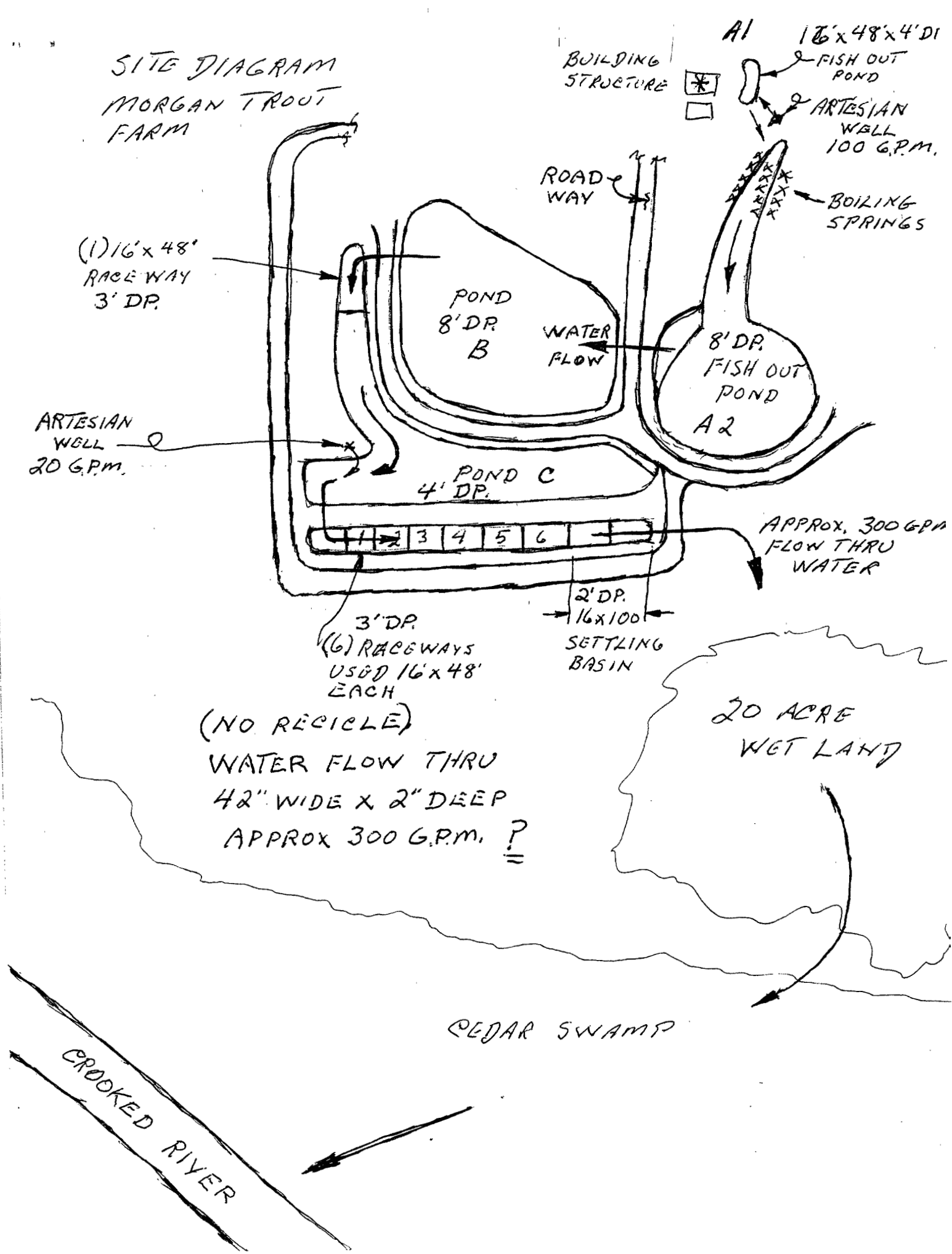
USGS 2 km N of Alanson, Michigan, United States 28 Apr 1998

Image courtesy of the U.S. Geological Survey

Send To Printer Back To TerraServer

USGS 2 km N of Alanson, Michigan, United States 28 Apr 1998

Image courtesy of the U.S. Geological Survey


SITE DIAGRAM
MORGAN TROUT FARM
A1 16'x48'x4' DP
BUILDING STRUCTURE
FISH OUT POND
ARTESIAN WELL 100 G.P.M.
ROAD WAY
BOILING SPRINGS
(1) 16'x48' RACE WAY 3' DP.
POND 8' DP. B
WATER FLOW
8' DP. FISH OUT POND A2
ARTESIAN WELL 20 G.P.M.
POND C 4' DP.
1 2 3 4 5 6
APPROX. 300 GPM FLOW THRU WATER
2' DP. 16x100 SETTLING BASIN
3' DP. (6) RACEWAYS USED 16'x48' EACH
(NO RECICLE) WATER FLOW THRU 42" WIDE X 2" DEEP APPROX 300 G.P.M. ?
20 ACRE WET LAND
CEDAR SWAMP
CROOKED RIVER

Classic Floating Fish Feed

Aliments complet flottants classique pour poissons

5PT Regular

20 kg Net wt.

Poids net: 20 kg

Guaranteed Analysis		Analyse garantie	
Crude Protein/Protéines crues(min.)	40.0%	Sodium (actual/actuel)	0.45%
Crude Fat/Graisse Crue (min.)	11.0%	Vitamin/Vitamine A (min.)	6,800 IU/kg
Crude Fibre/Fibre Crue (max.)	3.5%	Vitamin/Vitamine D (min.)	2,100 IU/kg
Calcium (actual/actuel)	1.0%	Vitamin/Vitamine E (min.)	80 IU/kg
Phosphorus/Phosphore (actual/actuel)	0.85%		

Ingredients/ Ingrédients

Herring Meal,Fish Oil, Blood Meal,Wheat,Wheat Middlings,Soybean Meal,Feather Meal,Corn Gluten Meal, Dried Whey, Iodized Salt, Choline chloride, Ascorbyal polyphosphate,Ethoxyquin, Vitamin A, Vitamin D3,Vitamin K,Vitamin E,Vitamin B12, Thiamine,Calcium pantothenate,Riboflavin, Niacin,Folic Acid, Biotin,Pyridoxine,Copper sulphate, Ferrous sulphate, Manganese sulphate, Zinc sulphate

Feeding Directions

Feed as sole ration
Close bag between feedings
Store in a cool dry location.

Instructions

Servir à l'exclusion de tout autre aliment.
Fermer le sac entre alimentations.

Caution

Do not feed to cattle, sheep, deer or other ruminants

Mise en Garde

Ne pas donner en nourriture aux bovins, aux ovins, aux cervidés ni à tout autre ruminant.

JUN.19/02

Product of Canada

Produit du Canada

'Manufactured by / Fabrique par'

LOT# 06180210

MARTIN MILLS INC. P.O. Box 130, Elmira, Ontario, Canada N3B 3A2

Registration #811123

CBI REPLACEMENT PAGE

NOTICE OF DATA AVAILABILITY FOR OW-2002-0026

9 page(s) of Survey ID 14120 have been removed because they contain Confidential Business Information (CBI) per 40 CFR Part 2, Subpart B. This information can be found in the Confidential Rulemaking Record.

DETAILED QUESTIONNAIRE FOR THE AQUATIC ANIMAL PRODUCTION INDUSTRY
REVIEWER COVER SHEET

Survey ID: [redacted] Facility/ Company Name: [redacted]

	Reviewer 1	Reviewer 2
Name	Colleen Campbell	Adam White
Date Started	3/21/03	3/24/03
Date Completed	3/21/03	3/24/03

CBI Check

All (box on p. iii is checked)	Some (individual questions are marked as CBI)	None	Financial documents marked "confidential"–transferred to survey responses (or vice versa)
	✓		

Zero Discharger: Yes ____ No ✓

Non-responsive—Part C missing or blank: ____ (check if "yes")

Need to change units: ____ (check if "yes")

Need to complete from financial documents: ____ (check if "yes")

Question Number	**Problem**

PART C ECONOMIC AND FINANCIAL INFORMATION

In developing effluent guidelines, EPA is required under the Clean Water Act to evaluate the economic impacts of potential additional water pollution control costs to the industry. One element of EPA's economic analysis will be a determination of the proposed regulation's impacts on individual facilities. Using actual facility-level financial information is the most accurate way to estimate these impacts. With this information, EPA's analysis can compare facility-specific costs of compliance to facility financial data. For each proposed regulatory option under consideration, EPA can estimate the likelihood of any facility closures and also estimate financial impacts that are less severe than closure. To estimate potential closures, EPA generally uses a standard financial decision model that predicts closure if net income changes from positive to negative after incurring any additional pollution control costs. Other impacts, such as losses in output, losses in revenue, and losses in employment, can be calculated directly from the closure analysis and corresponding facility-level data collected in this survey.

In addition to requesting cost and income information, EPA is also requesting a limited set of balance sheet information. This information will allow EPA to more fully evaluate a farm's financial performance using criteria that have been established by the U.S. Department of Agriculture (USDA), as well as other financial ratios that are commonly used by USDA and industry to assess farm financial performance.

For example, in its analyses [redacted] income and debt-to-asset ratio to classify the overall financial position of a farm based on annual earnings and solvency. Net farm income—which is obtained from income statement information (i.e., income and expenses)—provides a measure of long-term profitability. Debt-to-asset ratios, which are obtained from balance sheet information (i.e., assets and liabilities), provide a measure of a farm's financial risk. Together these two measures provide an indicator of the farm's long-term financial health and viability. USDA's financial classification of U.S. farms identifies an operation with negative income and a high debt-asset ratio as "vulnerable." An operation with positive income and a low debt-asset ratio is considered "favorable."

Other financial ratios commonly used by USDA and industry to measure farm financial performance also rely on balance sheet information. These include other measures of solvency, leverage, liquidity, and profitability (e.g., return on assets and returns on equity).

COST AND INCOME INFORMATION

The next section requests cost and income information for 3 years: 2001, 2000, and 1999. Information is being requested both at the farm facility level **(i.e., total farm operations)** and at the aquaculture level **(i.e., aquatic animal production only). Respondents may choose to voluntarily provide EPA with a photocopy of their 2001, 2000, and 1999 tax forms** (e.g., Schedule F, Schedule C, Form 1120 or 1120S) **or prepared income statements instead of completing Question C6 related to total farm/facility operations** (federal tax returns and return information is kept confidential as provided in the federal code at 26 U.S.C. § 6103). To the degree possible, EPA has identified the corresponding tax form line items (Schedule F and Schedule C) where the requested data can be found.

EPA recognizes that some facilities may not maintain income records at the aquaculture level, and it does not intend for these respondents to hire a professional to help them complete this question (Question C9). However, EPA believes that it can perform a better economic analysis with best financial estimates rather than no information. As necessary, respondents may call the toll-free Economic Helpline at (800) 566-7364 for assistance in completing these questions.

☐ CBI **C1.** Which of the following corporation types best describes this company, proprietor, or entity? (Check only *one* box:)

- ☐ Corporation (C Corporation)
- ☐ Subchapter S Corporation/Limited Liability Corporation
- ☐ Limited partnership
- ☐ General partnership
- ☒ Sole proprietor

☐ CBI COPY ___ OF ___

C2. Aquatic animal production facilities operated by the company (*facility* is defined on page vii). List any additional aquatic animal production facilities in the United States that are operated by the company. Provide the name, city, state, and ZIP code of the facility and the primary species raised. If additional spaces are required, photocopy these pages ***before*** writing on them and label each copy in the space provided at the top right corner of the page. Appendix A lists species categories. Use ***only*** these categories to identify aquatic animal production activities at each facility. Call the Technical Information Help Line at (888) 733-1449 if you raise a species not listed in Appendix A.

Facility name	City	State	ZIP code	Primary species
[redacted]	[redacted]	[redacted]	[redacted]	RAINBOW TROUT (same as above)

If you listed additional facilities, what was the total company revenue in 2001? **(round to the nearest thousand)** $ __ __, __ __ __, 000

☐ CBI **C3.** Which of the following statements ***best*** describes this facility? (Check ***one*** box:)

- ☒ Aquatic animal production is the ***only*** agricultural activity.
- ☐ Aquatic animal production is one of several agricultural activities, but aquatic animal production is the primary industry.
- ☐ Aquatic animal production is one of several agricultural activities, and other agriculture—***not*** aquatic animal production—is the primary industry.

☐ CBI **C4.** Which of the following statements ***best*** describes your aquatic animal production activity? (Check ***one*** box:)

- ☒ I am an independent grower.
- ☐ I am a grower that contracts with another company for quantity and price prior to sale.
- ☐ I am part of a production cooperative.

☐ CBI **C5.** Please check the box identifying the accounting method used at your facility. (See Definitions on page v:)

- ☒ Cash
- ☐ Accrual

FISH, SHELLFISH, OR OTHER AQUATIC ANIMAL PRODUCTION INFORMATION

Questions C9 and C10 request information specific to your aquatic animal production operation. **As a reminder, you do not have to complete Question C9 if aquatic animals were the only agricultural products you produced in 2001, 2000, and 1999.**

☐ **CBI**

C9. Aquatic Animal Information. Complete the following information for fiscal years 2001, 2000, and 1999. **Report amounts in dollars; round to the nearest thousand.** If you cannot separate any of the **individual expense items** into "aquatic animal production" and "other total farm" costs, enter "NA." If the cost of aquatic animal production for an individual expense item is zero, enter "0." Do not leave any of the cells blank. You must provide information (i.e., best estimates) on the Gross Income and Total Expenses at your farm facility related to aquatic animal production.

Check one box: The values given below are: from prepared financial statements ☐ my best financial estimates ☐

(Reference tax schedule and line numbers follow in parenthesis - information requested will be a *portion* of these line items)	2001	2000	1999
Gross Income (Part of Schedule F, cash - line 11, accrual - line 51; Schedule C, line 7)	$ ___,___,000	$ ___,___,000	$ ___,___,000
Total Expenses (Part of Schedule F, line 35; Schedule C, line 28)	$ ___,___,000	$ ___,___,000	$ ___,___,000
Individual Expense Items			
a. Chemicals (F:13)	$ ___,___0___,000	$ ___,___0___,000	$ ___,___0___,000
b. Depreciation (F:16; C:12 and C:13)	$ ___,___,000	$ ___,___,000	$ ___,___,000
c. Feed purchased (F:18)	$ ___,___,000	$ ___,___,000	$ ___,___,000
d. Fertilizers and lime (F:19)	$ ___,___0___,000	$ ___,___0___,000	$ ___,___0___,000
e. Gasoline, fuel, and oil (F:21)	$ ___,___0___,000	$ ___,___0___,000	$ ___,___0___,000
f. Insurance (other than health; F:22; C:15)	$ ___,___,000	$ ___,___,000	$ ___,___,000
g. Interest-mortgage (F:23a; C:16a)	$ ___,___0___,000	$ ___,___0___,000	$ ___,___0___,000
h. Interest-other (F:23b; C:16b)	$ ___,___0___,000	$ ___,___0___,000	$ ___,___0___,000
i. Labor hired (F:24; C:26)	$ ___,___0___,000	$ ___,___0___,000	$ ___,___0___,000
j. Rent or lease-vehicles, machinery, and equipment (F:26a; C:20a)	$ ___,___0___,000	$ ___,___0___,000	$ ___,___0___,000
k. Rent or lease-land, animals, other (F:26b; C:20b)	$ ___,___0___,000	$ ___,___0___,000	$ ___,___0___,000
l. Repairs & maintenance (F:27; C:21)	$ ___,___,000	$ ___,___,000	$ ___,___,000
m. Taxes (F:31; C:23)	$ ___,___,000	$ ___,___,000	$ ___,___,000
n. Utilities (F:32; C:25)	$ ___,___,000	$ ___,___,000	$ ___,___,000
COMPLETE THE FOLLOWING ONLY IF YOU USE ACCRUAL ACCOUNTING (enter "NA" if you use cash accounting):			
o. Cost of Aquatic Animals Sold - Eggs, Seed, Fry, Fingerlings, Broodfish, etc. (Part of F:50; C:42)	$ ___,___,000	$ ___,___,000	$ ___,___,000

☐ CBI **C13.** Complete the following table for fiscal year 2001 at the company level. Provide best estimates for the percent each industry classification contributes to the facility by sales and total production.

	Industry Classification					
	Finfish aquaculture	Hatchery	Shellfish farming	Other aquatic animal production	Other	Row total
Percent of sales	100 %	%	%	%	%	100%
Percent of total production (lb. or other units)	100 %	%	%	%	%	100%